

## **Discussion of Detailed Action**

### **Election Restriction**

The USPTO disagreed with the arguments presented by the applicant concerning the Election/Restrictions, which resulted in the applicant being limited to prosecuting Claims 4, 8, 11, 12, 16 and 20. The applicant has therefor cancelled the remaining claims that were filed with the application. Notwithstanding this cancellation, the applicant reserves the right to refile the cancelled claims in a later-filed application.

### **Claim Rejection Under §112**

The USPTO rejected Claims 4, 8, 11, 12, 16 and 20 under 35 USC §112, asserting that the claim limitations of Claim 4 do not comply with the written description of the application. In particular, the Examiner asserted that claim limitations concerning the "separation of solutions" limitation is not supported by the specification. The applicant has amended Claim 4 to clarify that after the phyllosilicate is activated by the acid in the presence of the iron cations, the solution containing excess catalytically active iron cations is separated from the activated phyllosilicate. This claim language is consistent with the language of the specification as cited by the Examiner on page 3 of the Office Action. Further, this claim language is supported by the specification, as previously discussed. The applicant respectfully asserts that the amendment to Claim 4 overcomes the rejection under

§ 112.

The USPTO has also asserted that there is no support in the specification for Claims 11 and 12, as submitted. The applicant respectfully traverses this rejection. These claims claim acid activation carried out in the presence of an earlier produced acid-activation solution, which solution contains aluminum ions or aluminum ions in conjunction with iron ions. Support for these claims is contained in original Claim 4 from page 14 of the translation of the priority application, where it states:

4. Process as claimed in one of claims 1 to 3, wherein acid activation is carried out in the presence of a waste liquor from earlier acid activation, which liquor contains aluminum ions and/or iron ions.

Originally filed claims from an application can form the basis for claims as the claims, as filed, are part of the "disclosure" of the application. As stated in the MPEP "...the claims as filed in the original specification are part of the disclosure..." (MPEP 2163, page 2100-167 Revision 2, May 2004.) "All amendments or claims must find descriptive basis in the original disclosure.... Applicant may rely for disclosure upon the specification with original claims and drawings, as filed." (MPEP 608.) Accordingly, the applicant respectfully asserts that support exists for Claims 11 and 12 in the application, as filed.

#### Rejections Under 35 USC §102

The USPTO rejected Claims 4, 8, 11, 12, 16 and 20 under 35 USC

§102 as being anticipated by EP 0 925 829. The applicant respectfully traverses this rejection.

The applicant has discovered a new, single step process for the production of catalysts. In conventional processes for the production of catalysts, the phyllosilicate is activated by treatment with an acid in a first step. After activation the activated phyllosilicate is then washed and, in a separate, second step, treated with appropriate metal cations to produce the catalyst end product.

The applicant has surprisingly discovered that improved catalysts can be produced when a single step process is utilized where the acid activation step is carried out in the presence of the catalytically active metal ions. No two step process of treatment is required.

EP 0 925 829 discloses a conventional, two-step process for the production of an acid-activated clay. This two-step process is set forth in paragraphs 60 through 67. The individual aspects of this two step process and the paragraphs which disclose that process in EP 0 925 829 are as follows:

- 1) The clay mineral is prepared "in the form of particles." (Paragraph 60.)
- 2) The clay particles are "kneaded." (Paragraph 61.)
- 3) The kneaded clay particles are "granulated." (Paragraph 62.)

4) The granular clay is activated by treatment with an acid.

(Paragraph 64.)

5) The "acid-treated product"..."is washed with water" to remove any excess acid. After washing with water, the acid-treated product is "dried, milled and is classified." (Paragraph 66.)

6) After washing, drying, milling and classification, an "iron component can be added to the activated clay...." "This addition can be advantageously carried out for the acid-treated product (activated clay) which has been washed with water but which has not been dried yet. The iron component, however, may be added to the dried product." (Emphasis supplied) (Paragraph 67.)

Accordingly, the process disclosed in EP 0 925 829 teaches that the treatment of the activated clay with the iron component must occur only after the acid activation of the clay, i.e. it teaches a conventional, mandatory two-step process. In contrast, the applicant's invention claims that the iron ions are introduced directly into the mixture of the phyllosilicate and the acid i.e. a one-step process. It has been surprisingly discovered that an ion exchange reaction may be preformed during the acid activation step. Thus, acid activation and ion exchange with catalytically active ions are preformed at the same time. The conventional state of the art process, as disclosed in EP 0 925 829, is that these two steps of the process must be preformed consecutively with the addition of the metal ions occurring only after acid activation.

It has also been surprisingly discovered that catalysts prepared using this new, inventive one-step process perform better than catalysts produced utilizing the conventional two-step addition process that is disclosed by the prior art, such as EP 0 925 829. (See Examples 6, 7, 8, 9 and 10.)

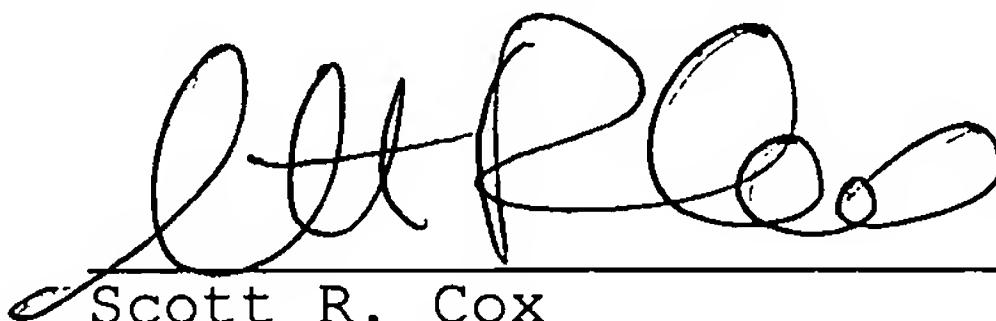
For all of these reasons, the applicant asserts that the claims, as amended, are not disclosed or taught by EP 0 925 829.

CONCLUSION

The applicant asserts that all remaining claims of the application have been placed in condition for allowance and requests that a Notice of Allowability be issued.

If there are any questions concerning this Amendment, please contact applicant's counsel.

Respectfully submitted,



Scott R. Cox

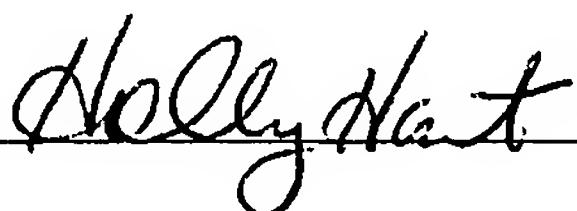
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LYNCH, COX, GILMAN & MAHAN, P.S.C.  
400 West Market Street, Suite 2200  
Louisville, Kentucky 40202  
(502) 589-4215

CERTIFICATE OF SERVICE

I hereby certify that this correspondence is being deposited with the United States Postal Service in an envelope addressed to Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

Dated: October 18, 2004



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